NITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Offi-Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandria, Virgima 22313-1450 www.usplo.go

# NOTICE OF ALLOWANCE AND FEE(S) DUE

86528 7590

King & Spalding LLP 401 Congress Avenue

Suite 3200

Austin, TX 78701

07/29/2010

EXAMINER GORDON, BRYAN P

PAPER NUMBER ARTHNIT

2837 DATE MAILED: 07/29/2010

APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. 10/596.694 06/20/2007 Angelo D'Arrigo 78857.105667 9542

TITLE OF INVENTION: ACTUATOR UNIT AND METHOD FOR MANUFACTURING AN ACTUATOR UNIT

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1510	\$300	\$0	\$1810	10/29/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. <u>PROSECUTION ON THE MERITS IS CLOSED.</u> THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown

B. If the status above is to be removed, check box 5b on Part B -Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# PART B - FEE(S) TRANSMITTAL

# Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or Fax (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where

appropriate. All further indicated unless corrects maintenance fee notifica	correspondence includir ed below or directed oth tions.	ng the Patent, advance of nerwise in Block 1, by (	orders and notification of r a) specifying a new corres					
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.				
86528	7590 07/29	V2010	nave			-		
King & Spaldin 401 Congress A Suite 3200	venue		I he Stat addi tran	reby certify that the es Postal Service vessed to the Mai smitted to the USP	is Fee( vith su Stop TO (57	e of Mailing or Trans s) Transmittal is being ficient postage for first ISSUE FEE address I) 273-2885, on the d	mission g deposi st class i above, ate indic	ted with the United mail in an envelope or being facsimile cated below.
Austin, TX 7870	)1							(Depositor's name)
			_					(Signature)
								(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTORNEY DOCKET NO. CONFIRMA		TRMATION NO.	
10/596,694	06/20/2007	•	Angelo D'Arrigo	rrigo		78857.105667		9542
TITLE OF INVENTION	: ACTUATOR UNIT A	ND METHOD FOR MA	NUFACTURING AN ACT	UATOR UNIT				
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE		DATE DUE
nonprovisional	NO	\$1510	\$300	\$0		\$1810		10/29/2010
EXAM	IINER	ART UNIT	CLASS-SUBCLASS	ASS				
GORDON,	BRYAN P	2837	I23-498000					
1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).			2. For printing on the patent front page, list					
	ondence address (or Cha B/122) attached.	inge of Correspondence	(I) the names of up to or agents OR, alternativ	3 registered pater ely,	t attor	ieys <sup>1</sup>		
			(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to					
☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.			2 registered patent attorneys or agents. If no name is listed, no name will be printed.					
3. ASSIGNEE NAME A	ND RESIDENCE DATA	A TO BE PRINTED ON	THE PATENT (print or type	ne)				
PLEASE NOTE: Uni	less an assignee is ident	ified below, no assignee	data will appear on the p T a substitute for filing an	stent. If an assign	ee is i	dentified below, the d	ocumen	t has been filed for
(A) NAME OF ASSI		netion of this form is NC	(B) RESIDENCE: (CITY					
(-)			(-)(			/		
			_	_				_
Please check the appropr	iate assignee category or	categories (will not be p	rinted on the patent):	Individual 🚨 C	orporat	ion or other private gro	oup entit	y Government
4a. The following fee(s)	are submitted:	4	b. Payment of Fee(s): (Plea	se first reapply a	ny pre	lously paid issue fee	shown a	above)
Issue Fee			A check is enclosed.					
☐ Publication Fee (No small entity discount permitted) ☐ Payment by credit card. Form PTC ☐ Advance Order - # of Copies ☐ The Director is hereby authorized			authorized to cha-	ge the	required fee(s), any de	ficiency	or credit any	
			overpayment, to Depó	sit Account Numb	er	(enclose a	n extra o	copy of this form).
5. Change in Entity Sta	tus (from status indicate is SMALL ENTITY statu		☐ b. Applicant is no lon	nor claiming CMA	I EM	FITV status San 27 C	CD 1 27	(a)(2)
			ed from anyone other than t k Office.					
interest as shown by the	records of the United Sta	tes Patent and Trademarl	k Office.	11 / 0			-	
Authorized Signature			Date					
Typed or printed name			Registration No.					
This collection of inform an application. Confiden submitting the completes this form and/or suggests Box 1450, Alexandria, V Alexandria, Virginia 223	nation is required by 37 C tiality is governed by 35 d application form to the ions for reducing this but 'irginia 22313-1450. DC k13-1450.	CFR 1.311. The informati U.S.C. 122 and 37 CFR USPTO. Time will vari rden, should be sent to the ONOT SEND FEES OR	on is required to obtain or r 1.1.4. This collection is est y depending upon the indiv the Chief Information Office COMPLETED FORMS TO	etain a benefit by imated to take 12 idual case. Any co r, U.S. Patent and D'THIS ADDRES:	he pub minute ommen Trader S. SEN	lic which is to file (and is to complete, includir is on the amount of ti- nark Office, U.S. Dep D TO: Commissioner	I by the ig gathe ne you artment for Pate	USPTO to process) ring, preparing, and require to complete of Commerce, P.O. nts, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PTOL-85 (Rev. 08/07) Approved for use through 08/31/2010.



# UNITED STATES PATENT AND TRADEMARK OFFICE

#### UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS

P O Box 1450 Alexandra, Virgima 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FILING DATE FIRST NAMED INVENTOR		CONFIRMATION NO.	
10/596,694	06/20/2007	Angelo D'Arrigo	78857.105667	9542	
86528 75	90 07/29/2010		EXAM	INER	
King & Spalding LLP			GORDON, BRYAN P		
401 Congress Aver		ART UNIT	PAPER NUMBER		
Suite 3200 Austin, TX 78701			2837 DATE MAII ED: 07/29/201		

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

# Notice of Allowability

Application No.	Applicant(s)
10/596,694	D'ARRIGO, ANGELO
Examiner	Art Unit
BRYAN P. GORDON	2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address-All claims being allowable, PROSECUTION ON THE MERTIS IS (OR REMAINS) CLOSED in this application. If not included
herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS
NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative
of the Office or upon petition by the applicant. See 37 CFR 133 and MPEP 1308.

- This communication is responsive to 30 June 2010.
- The allowed claim(s) is/are 1-3, 5-7, 10-12 and 14-16.
- 3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - - 1. T Certified copies of the priority documents have been received.
    - 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_
      - Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
  - \* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

- 4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
- 5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1) Thereto or 2) to Paper No./Mail Date
  - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

- 1. Notice of References Cited (PTO-892)
- 2. 
  Notice of Draftperson's Patent Drawing Review (PTO-948)
- Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date
- Examiner's Comment Regarding Requirement for Deposit of Biological Material
- 5. Notice of Informal Patent Application
- Interview Summary (PTO-413), Paper No./Mail Date .
- 7. X Examiner's Amendment/Comment
- 8. T Examiner's Statement of Reasons for Allowance
- 9. ☐ Other

Application/Control Number: 10/596,694 Page 2

Art Unit: 2837

#### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes
and/or additions be unacceptable to applicant, an amendment may be filed as provided
by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be
submitted no later than the payment of the issue fee.

- Authorization for this examiner's amendment was given in a telephone interview with Eric Grabski on 07 July 2010.
- amended to add the limitations of claims 4 and 13, respectively. Therefore, claim 1 now states "An actuator unit comprising: a tube spring, a piezoelectric actuator, that is inserted into the tube spring, a first cap, that is connected to the tube spring at a first free end of the tube spring and which is adjoined by the piezoelectric actuator, a tube-shaped body, that is connected to the tube spring by joining and is arranged in the area of a second free end of the tube spring, a means for pretensioning the piezoelectric actuator after the tube spring is connected to the first cap and the tube-shaped body, the means for pretensioning being supported by the tube-shaped body and pretensions the piezoelectric actuator by physically compressing the piezoelectric actuator but not the tube spring and comprising a thread in the tube-shape body, wherein the pretensioning means is a screw that is screwed into the thread".
- 4. Furthermore, claim 10 has been amended to say "An actuator unit comprising: a tube spring comprising a piezoelectric actuator, a first cap connected to the tube spring at a first free end of the tube spring, a tube-shaped body, that is connected to the tube

Art Unit: 2837

spring and is arranged in the area of a second free end of the tube spring, a piezoelectric actuator pretensioning device supported by the tube shaped body, the piezoelectric actuator pretensioning device configured to pretension the piezoelectric actuator, after the tube spring is connected to the first cap and the tube-shaped body, by physically compressing the piezoelectric actuator but not the tube spring and comprising a thread in the tube-shape body, wherein the pretensioning means is a screw that is screwed into the thread."

- Lastly, claims 4 and 13 are cancelled since they are incorporated into the independent claims and withdrawn claims 8-9 are also cancelled.
- 6. The following is an examiner's statement of reasons for allowance: Considering claims 1 and 10, the prior art does not teach an actuator unit comprising: the means for pretensioning being supported by the tube-shaped body and pretensions the piezoelectric actuator by physically compressing the piezoelectric actuator but not the tube spring and comprising a thread in the tube-shaped body and wherein the pretensioning means is a screw that is screwed into the thread.
- 7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."
- References cited but that did not meet all the applicant's claimed limitations are listed on the 892 sheet

Application/Control Number: 10/596,694 Page 4

Art Unit: 2837

# Conclusion

 Any inquiry concerning this communication or earlier communications from the examiner should be directed to BRYAN P. GORDON whose telephone number is

(571)272-5394. The examiner can normally be reached on Monday-Thursday 8:00-

5:30, Friday 7:30-4:00.

 If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor. Walter Benson can be reached on 571-272-2227. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

11. Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Walter Benson/

Supervisory Patent Examiner, Art Unit 2837

/Bryan P Gordon/ Examiner, Art Unit 2834